NEBRASKA PRACTICE DOCUMENTATION REQUIREMENTS
GENERAL DOCUMENTATION REQUIREMENTS

INTRODUCTION

Conservation planning and design guides are aides that can be used to remind the planner and designer of the steps that need to be followed when planning a conservation system. These guidelines will be most useful to those who have had little experience in planning and designing a specific type of conservation practice.

Some steps in the guides may be beyond the training and experience of the planner or designer to carry out. Technical assistance from field or state office staffs should be obtained for such activities. This assistance should be viewed as a training opportunity and used to learn more about performing these steps.

Even with experience, it is difficult to remember all of the things that need to be considered when planning and designing a conservation improvement. The job is becoming more complex as laws and regulations continue to be implemented which control what can be done and how it must be done. The Practice Documentation Requirements Manual is a tool designed to help keep track of things that must be considered.

These instructions outline the minimum data to be recorded in planning, installing, and checking a conservation practice in accordance with the NRCS General Manual (GM), Section 450, Part 407. In many cases, data will be tabulated and computations will be made as a part of design and plan preparation that may not be reflected or shown on documentary guidelines. These data sheets will also be filed with supporting data for the practices.

GENERAL

Documentation and supporting data requirements may be similar for more than one practice. On multiple component type practices, such as waterspreading, agricultural waste management, critical area treatment, etc., the documentation will be as outlined in the practice in addition to the documentation requirements for each practice component used in the system.

Only those conservation practices normally encountered in Nebraska requiring documentation and supporting data are represented in the Practice Documentation Requirements Manual (PDRM). Guidelines for documentation and supporting data for the seldom used practices, where cost-sharing is involved or the operator has requested NRCS technical assistance, can be found in the General Manual (GM), Section 450, Part 407.10, the standard pertaining to the practice, and the general format as outlined herein.

The instructions for documentation and supporting data contained herein are intended to supplement and complement the Nebraska Field Office Technical Guide (FOTG) and the National Engineering Manual (NEM). If items contained in this manual conflict, the NEM and FOTG will govern.

FORMAT

Documentation records usually consist of the following items as outlined below which were generally followed as the format of the PDRM for the practices:

I. GENERAL
   A. References
II. RESOURCE INVENTORY AND SURVEYS
   A. Design Investigations
   B. Design Surveys
   C. Environmental Inventory
III. DESIGN
   A. Design Data
   B. Permits
IV. PLANS AND SPECIFICATIONS
   A. Plans
   B. Specifications
   C. O&M Plans
   D. Plans, Specifications, O&M Plans Delivery
V. LAYOUT
   A. Layout Surveys
   B. Quantity Computations
VI. COMPLIANCE CHECKING
   A. Record
   B. "As Built" Plans

FIELD SURVEYS

Field surveys are usually made for one or more of the following purposes:

- *Feasibility*
  Those surveys and determinations that are made at a site for purposes of determining feasibility or practicability. These surveys are usually an investigation consisting of random instrument readings, and normally it is not required to maintain formal notes on them unless such information is to be incorporated into subsequent surveys.

- *Design*
  Those surveys and determinations that are made at a site for purposes of developing a design and construction plan for the practice.

- *Layout*
  Those surveys and determinations that are made for the purpose of laying out parts or all of the work planned for construction and establishing quantities or confirming design quantities of the work to be completed.

- *Construction*
  Those surveys and determinations that are made during construction of the work for purposes of evaluating construction accomplished or ascertaining quantities of work done.

- *Compliance*
  Those surveys and determinations that are made at the completion of construction of the work for purposes of determining compliance with approved plans and specifications, or for the purpose of evaluating quality control activities, such as spot checking.

For small jobs on some practices, it is considered feasible to combine surveys under one operation during one trip to the field. More complex jobs usually require separation of surveys.

For practices with components that are designed to specific lines or grade, elevations shall be controlled by establishment and recording of at least one known elevation benchmark. Elevation of benchmarks for the smaller individual jobs may be either assumed or actual elevations. All benchmarks shall be clearly described as to identification and location.

FIELD NOTES

Field survey notes are one of the basic foundations of all our engineering design and construction. There are minimum basic requirements that must appear in completed field note records. Field survey notes will conform to NEM Part 540 and follow standard field note documentation as illustrated in Technical Release 62 (TR-62) and/or Nebraska Standard Format for Engineering Notes Transmittal Sheets No. 3. Survey notes will be prepared such that they exhibit legible, logical, clear and concise data.

- Loose-leaf field notes shall be used for most work normally performed at the field office level, except for those practices where special job sheets are used and work is or can be expected to be of a continuing nature. The sheets of loose-leaf notebooks will be filed with the plans, computations, and other supporting data relating to the work.

- Bound field books will be used for all large jobs, group jobs, watershed, and other jobs of a continuing nature. When bound books are used, they will be properly indexed and filed. Bound books may be numbered consecutively.

- Electronic surveys are acceptable. An unedited copy of the survey notes that meets TR-62 and Transmittal Sheet No. 3 shall be printed and kept in the project file.

- All field notes pertaining to a particular job, or notes pertaining to any phase or portion of a job, shall contain the standard survey heading which includes:
  - Name of practice and type of survey.
  - Cooperator's name.
  - Location of job by legal description, sketch, field notes, aerial photograph, special form, or reference to the conservation plan map.
  - Date of survey and weather.
  - Names of members of survey party.
  - Location, description, and elevation of benchmarks.
    (This information is customarily put at the top of the sheet on which the survey notes are kept or on the title page of the survey notes.)

All calculations will be checked. The checker initials and dates each page of notes.

OTHER DESIGN DATA

In the design and planning of many practices, it is essential to gather and compile data other than survey information. This may consist of any or all of the following:

- Soil mechanics information including soil profiles, soil classification, samples, geological reports, and soil mechanics tests results.
- Soil survey information on limitations and treatment.
- Hydrologic information including drainage areas, peak flood information, soil cover complexes, and hydrologic soil groups.
- Hydraulic information including design quantities, capabilities, velocities, etc.
- Materials information including quality and quantity.
- Known cultural resource sites.
- Review of certified wetland determinations.
- Location of underground utilities; construction plans shall include a statement requiring the contractor to notify the Nebraska One-Call System (Diggers Hotline) regarding utilities on the construction site. An example of this statement is as follows:

  The contractor will inspect the construction area for the presence of utility facilities both surface and subsurface and will notify the Nebraska One Call System (1-800-331-5666) before construction activities begin. The contractor will use extra safety precautions when working near or around pipelines, power lines, power poles, underground cables, or other utility installations.

In many cases of small, simple jobs, it is possible to carry out design and layout operations during one trip to the site. Under these circumstances, the required design factors can usually be determined on-the-job. Appropriate determinations are then transferred to standard drawings. Quantity computations are made on computation sheets or quantities are selected from prepared tables on standard plans. All computation sheets and copies of job plans ("As Built" plans) are made a part of the technical file for the job.

In the more complex jobs, basic field information such as profiles, cross-sections, topography, etc., are taken in the field and returned to the office for design of the job. In these cases, design factors, computations, etc., are usually compiled or determined in the office. Necessary information from this material is used to develop the plan drawing and standard or written specifications for the work. All such data is made a part of the official job file. After this has been done, the work is laid out for construction.

ARCHEOLOGICAL/HISTORICAL/CULTURAL RESOURCES

Form NE-CPA-52 must be completed by NRCS during planning to prevent proceeding with an alternative that will or may have irreversible impacts on environmental and cultural resources. Complete all continuing environmental requirements stemming from planning as expressed in construction specifications, drawings, and related documents.

If NE-CPA-52 notes that no cultural resources or other resources of the various areas of environmental concern are present, but such evidence becomes suspected or apparent during construction layout, the review will be reinstated. Work will not proceed until adequate review and documentation has been completed.

If human remains or evidence of graves are suspected or are apparent during practice installation, disturbance actions will immediately stop in the area of the discovery and the county sheriff and the NRCS Field Office will be notified immediately. If archeological evidence other than human remains or graves is found, disturbing actions will be stopped immediately and the NRCS Field Office will be notified immediately. In either event work that disturbs such material or information will not proceed until federal and state procedures have been completed.

Signing of the statement of compliance will subsume that no cultural resources or other environmental resources of concern not reviewed previously were encountered.

DATA FORMS

The forms or data sheets listed in the instructions are those normally used in the processing of the practice. The variability and complexity of the practice will dictate the use of the listed forms or other additional forms or data sheets not listed. All pertinent supporting data should be in the official job file or referenced to the official files at the completion of the work.

OTHER SUPPORTING DATA

Some practices require several sheets to properly record information, such as: hydraulic and hydrologic determinations, material estimates, cross-sections, profiles, seeding. The more simple practices will normally require only one completed data sheet.

Some of the sheets require planned data to be posted when the conservation measure is planned and laid out in the field. Additional columns or lines are provided for the final constructed elevations, dimensions, quantities, or other items that are posted by the technician when checking the final construction. The data sheets are not complete until all columns or applicable blanks are filled out as required.

“As Built” construction plans and specifications for structural practices are considered supporting data. Where standard specifications are used with no modifications or additions, a list of the standard specifications furnished is adequate.

Minimum required specifications for vegetative and management-type conservation practices should be recorded on appropriate worksheets, except specifications for non-cost-shared practices or non-contract items may be recorded either on appropriate worksheets or in the conservation plan decision statement.

CONSTRUCTION

It is recommended that there will be timely construction inspection. The purpose of these inspections is to determine that the structures are being constructed according to plans or drawings and specifications. A construction report will contain observations as to the quality of work and other pertinent information. These reports will be filed with the completed data sheets to show what inspections were made and to support certifications.

The constructed section shall equal or exceed the planned section within tolerable limits. It should be possible to superimpose the completed cross-sections and/or profiles upon the planned cross-section or profile within tolerable limits and with allowance for settlement.

If the practice is constructed significantly different than designed; the practice must be reconstructed to meet the original design, or the as-constructed practice may be accepted, if, upon complete evaluation, it is shown to be acceptable (complete documentation and recalculation of as-built quantities is required).

Detailed instructions on factors such as frequency of cross-sections, profile stationing, slope stakes, etc., have purposely been held to a minimum because of the wide range of needs encountered in the field. Each individual is expected to exercise sound engineering judgment or secure guidance from an engineer.